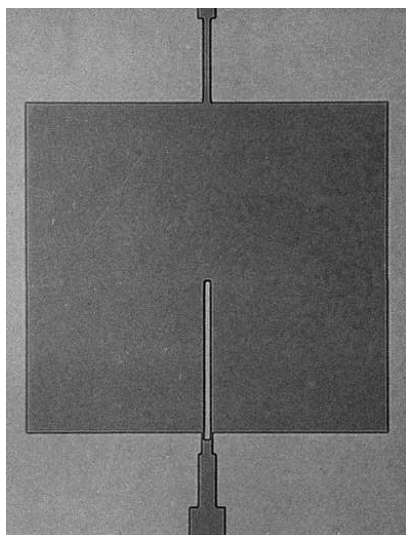


Low-Frequency Noise Reduced in High- T_c SQUIDs

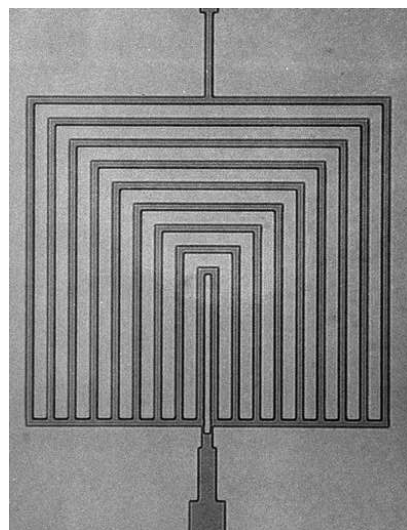
New Design Eliminates Excess Noise Produced by Earth's Magnetic Field

New washer designs have narrow superconducting lines.

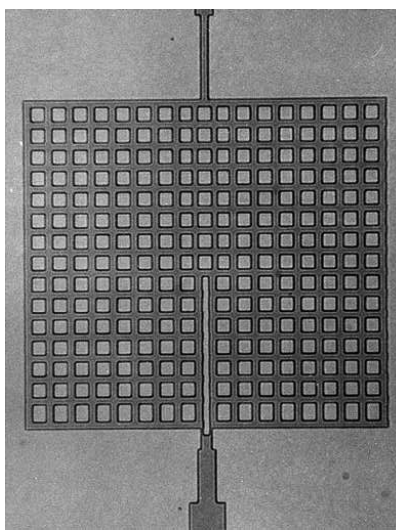
Standard "washer" design of dc SQUID.



Low frequency "excess" noise is generated as the Earth's magnetic field penetrates the solid washer.



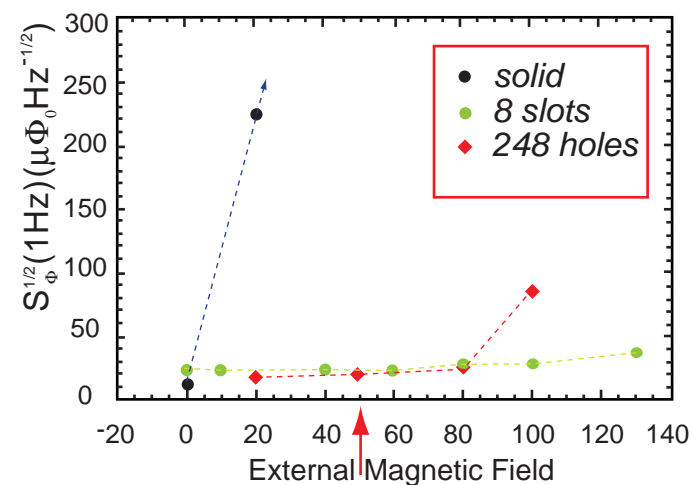
8 "slots"



248 "holes"

The Earth's magnetic field cannot penetrate the narrow structures in the new design.

Noise at 1 Hz induced as function of external magnetic field.



New design extends low noise performance to $>80 \mu\text{T}$
($50 \mu\text{T}$ =magnetic field of the Earth, arrow.)